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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/022,910	12/20/2001	Chih-Chien Tang	3313-0449P-SP	2159

2292 7590 06/08/2004

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EXAMINER

MATTHEW, AARON D

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 06/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/022,910

Applicant(s)

TANG, CHIH-CHIEN

Examiner

Aaron D Matthew

Art Unit

2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Specification

1. The disclosure is objected to because of the following informalities:

- The word, "is," in the phrase, "system is cannot boot up," (page 2, line 2), is confusing and should be removed.
- The phrase, "you should define OEM," on page 2, line 16, should be removed. Examiner also suggests that the remaining OEM on line 16 be defined to enhance clarity in the description.
- The language on page 3, lines 12-14 is confusing. Examiner suggests changing the phrase that begins, "the power management..." and ends, "...serial port of the computer," to read, "the power management of the destination system is set to provide power to the BIOS and serial port of the computer at system shutdown."
- The monitoring software mentioned on page 4, line 14 is mislabeled. It should be relabeled 15 in accordance with the accompanying figure.
- The monitoring software on page 4, line 15 is also mislabeled. In this case, however, the examiner assumes that the phrase, "monitoring software 14," should be replaced with, "remote serial port 14," to be in accordance with the accompanying figure, and to more closely reflect the preceding summary of the embodiment.
- The phrase, "transferred from the remote serial port 14 to the remote system 12 by way of the destination serial port 13 and the cable 18," is misleading.

The phrase is found on page 5, lines 21-23 and 25-26; and page 7, lines 18-20 and 22-23. The phrase presents what appears to be an improper chronology of events. The examiner suggests rewording the phrase to read, "transferred from the destination serial port 13 to the remote system 12 by way of the cable 18 and the remote serial port 14."

Appropriate correction is required.

Claim Objections

2. Claims 1-11 have been examined.

3. Claims 1-11 are objected to because of the following informalities:

- The word "burned" should replace "burn" on line 5 of claim 1.
- The language of the power supply management step of claim 1 is unclear. The examiner suggests rewording the language of this limitation to read, "a power supply management of said destination system is set to supply power to the BIOS and said destination system when the system is shutdown."
- There is no explicit antecedent basis for the destination serial port mentioned in line 10 of claim 1. The examiner suggests that the language of the limitation be changed to read, "...and a destination serial port of said destination system," to avoid this issue.
- The phrase, "generate four digits numerical data," on lines 2-3 of claims 3 and 5 is unclear. Examiner suggests rewording the phrase to read either:

"generate four digit numerical data," or, "generate four digits of numerical data." The examiner will assume that the former option is the preferred meaning of the phrase.

- The word "a" should be inserted before the mention of "regular result" on line 3 of claim 8, to enhance clarity.

Appropriate correction is required.

4. Claims 2-7 and 9-11 are objected to based on their dependence on claim 1.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Worley et al. (US 6,651,190 B1), and further in view of Woodruff (US 6,438,711 B2).

Regarding claim 1, Worley et al. teaches the following:

- A debugging method, (see Abstract), through a serial port, (col. 3, lines 24-26), under system shutdown condition and standby condition, (note Abstract, and col. 6, lines 3-7), the debugging method being used in a remote system to debug a destination system, (again, note Abstract).

- A power supply management providing step: a power supply management of the destination system, (see col. 3, lines 21-26 in discussion of an “onboard battery”), is set to supply power to the BIOS and destination system when the system is off.
- A monitoring step in which a remote maintenance device is used to monitor a host computer, (col. 3, lines 9-10), and data from the host computer’s serial port is read by the remote maintenance device, (col. 3, lines 24-26). This implies a step in which a monitoring software is executed in the remote system, and the result from the destination serial port of said destination system is read by said monitoring software.
- Also, inherently, this implies that the monitoring software of said maintenance device is used to check if the output from the destination serial port of the destination system is normal. Such a step would be construed as a debugging step.

In that it has been shown, (see again the abstract and col. 6, lines 3-7), that the aforementioned monitoring and debugging method is operating independently of the state of the host machine, (destination system), it is apparent that said method is functional in both shutdown and standby conditions of the destination system. The disclosure specifically states in the Abstract, and in col. 3, lines 32-35 that, “(the invention) is totally unaffected by the failure of the CPU, motherboard, power supply, physical room power, UPS power availability, host software, or the network.” Col. 5, lines 36-37 and col. 6, lines 45-47 explicitly

teach the step of monitoring the BIOS of the system. As it has been shown the monitoring device will function regardless of destination system state, (thus in standby and shutdown states), it is shown that the BIOS must be operable in both a standby and shutdown state of the destination system. Therefore, it is implied that the debugging method of Worley et al. teaches a programming step in which a power-off debug program and a standby debug program are compiled and burned into a BIOS.

Worley et al. teaches a system connecting step using a wireless communication link, (col. 3, line 19).

Worley et al. fails to teach a system connecting step in which a cable is used to connect a remote serial port of the remote system and the destination serial port of the destination system.

Woodruff teaches a remote monitoring system in which the destination system and the monitoring system are connected via a serial interface, (a serial interface implies a serial port in both the remote and destination systems; see col. 2, lines 56-58), said connection being facilitated by a cable, (col. 2, line 24).

Worley et al. and Woodruff are considered analogous art because they both teach a system in which a remote device monitors and debugs a target device.

One of ordinary skill in the art would have found it obvious to include a step of connecting the remote, monitoring device and the destination device of Worley et al with a cable. Such a step simply takes a means of connection between two computer systems that is well known in the art, (the wireless connection disclosed by Worley et al.), and replaces it with another well known means of connection between two computer systems, (the cable disclosed by Woodruff). Said replacement would have been obvious to one of ordinary skill in the art at the time of applicant's invention, and, moreover, one of ordinary skill in the art would have been properly motivated to make said replacement in order to include a means of connecting two computing devices in close proximity without necessitating the usage of expensive and complex wireless connection means.

Regarding claims 2 and 4, and as applied to claim 1 above, Worley et al. discloses a debugging method through a serial port under system shutdown and standby condition wherein said power-off debug program and said standby debug program allow for direct graphical interaction with the host computer, (col. 5, lines 39-42). It is also disclosed that the video serializer can be used for text mode serialization, (col. 5, lines 42-43). A graphical interaction with a computer inherently implies the ability to receive text and numerical data from the debug programs.

Regarding claims 3 and 5, and as applied to claims 1, 2 and 4 above, Worley et al. discloses a debugging method through a serial port under system shutdown and standby conditions wherein the power-off and standby debug programs are able to generate four digit numerical data. This limitation, in light of the above treatment of claims 2 and 4, would have been obvious to one of ordinary skill in the art. One of ordinary skill in the art would have clearly understood that the ability to generate numerical data would include generating said data with any preferred number of digits. The choice of 4 digit numerical data would have been obvious to one of ordinary skill in the art with a preference of 4 digit numerical data.

Regarding claims 6-8, and as applied to claim 1 above, Worley et al. fails to disclose a switching task mode step in which a switch is provided to change the output status of the destination serial port. Worley, therefore, fails to teach a switching task mode that enables the destination serial port to output the debug result of the BIOS when the switch is turned on, and enables the destination serial port to output the regular result of the BIOS when the switch is turned off.

Woodruff discloses a session manager that determines whether the remote management console is authorized to request a diagnostic session, (col. 5, lines 57-59). If authorized, the diagnostic report generated from the diagnostic software is transmitted to the remote location, (see col. 9, lines 8-9; Figure 6, step 606, and Figure 7, step 703). In other words, the destination serial port is enabled to output the debug result of the BIOS. If there is no request, the operating system boot module is executed, (col. 6, lines 38-40), and the operating system boot module loads an operating system into the memory of the computer system and runs the operating system. Thus, the destination serial port is thereafter enabled to output the regular result of the BIOS. The session manager, in this instance, is operating as a switch, that enables the result of the BIOS debug when on, and enables the regular result of the BIOS when off.

The switch disclosed by Woodruff offers the advantage of only outputting the results of a debugging or monitoring routine when said results are being requested. This improves the efficiency of the system by preventing a computer or other monitored device from performing unnecessary operations. One of ordinary skill in the art would have clearly recognized this advantage in view of Woodruff, and would have been properly motivated to apply the switching mechanism, as disclosed, to the debugging system of Worley et al. to prevent the debugging program from operating when not requested, thus improving efficiency.

Regarding claim 9, and as applied to claim 1 above, Worley et al. teaches a debugging method through serial port under system shutdown condition and standby condition wherein said monitoring software of the monitoring step is a, "World Wide Web based interface or browser interface," (col. 8, line 67 – col. 9, line 1). This implies that said software is a Hyper Terminal software, as understood by one of ordinary skill in the art.

Regarding claims 10 and 11, and as applied to claims 1 and 5 above, Worley et al. teaches a debugging method wherein said power-off or said standby debug programs start to debug and the result is shown on the remote system, (col. 3, lines 53-54), when the destination system is shutdown or under standby condition respectively, (note again, col. 2, lines 65-67 and col. 3, lines 32-35).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron D Matthew whose telephone number is (703) 605-1211. The examiner can normally be reached on Mon.-Fri., from 8:00 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert W Beausoliel can be reached on (703) 305-9713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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